REMARKS

The Office Action dated May 5, 2008 has been fully considered by the Applicant.

Enclosed is a Petition for Three-Month Extension of Time, a Request For Continued Examination and checks in the amount of $1920 for payment of the fees.

Attached is a replacement Figure 1/1 having the labels thereon as requested by the Examiner. No new matter has been added.

Claim 1 has been currently amended and includes the limitations of claim 9. Claims 2-5, 8, 10-12, 14-17, and 19-20 have been previously presented. Claims 6-7, 9, 13, and 18 have been canceled. Claims 21 and 22 are new. Support for new claim 22 can be found in the specification on page 9, line 13. No new matter has been added.

Claims 1-5, 8-12 and 20 have been objected to because of informalities. Claim 1 has been amended to change "brand" to --band– ; a comma has been inserted after "limit" in line 11; and the term "said" has been changed to --the-- in line 12, as suggested by the Examiner.

Claims 1-2, 12 and 14-15 rejected under 35 U.S.C. §103(a) as being unpatentable by United States Patent No. 6,694,131 to Lakkis in view of United States Patent No. 7,203,457 to Wetzel are traversed herein.

Satellite broadcasters use the fact that the atmosphere provides a low loss signal path for certain mircowave frequencies to provide satellite broadcasts at these frequencies. Microwave frequencies range from 3-30GHz. Some of the early broadcasts were at relatively low microwave frequencies, but recently most have been in the S Band, C Band, Extended C Band, Ku and Ka band ranges of frequencies. The frequencies may vary from location to location. See the table below for an average overview of the range of frequencies for each band:

Band	Downlink Frequency (GHz)	Up-link Frequency (GHz)
S BAND	1.555 to 2.635	5.855 to 5.935
Extended C BAND (lower)	3.4 to 3.7	5.725 to 5.925
C BAND	3.7 to 4.2	5.925 to 6.425
Extended C Band (upper)	4.5 to 4.8	6.425 to 7.075
Ku BAND	10.7 to 13.25	14 to 14.5
Ka BAND	18.3 to 22.20	27.0 to 31.00

Typically, microwave signals in the S, C or Ku Band would suffer very high attenuation if they were carried via coaxial cable from an amplifier to a receiver. To overcome this problem, microwave signals need to be converted to a block of frequencies from 950 MHz to 2150 MHz. This range is typically referred to as Intermediate Frequencies (IF).

For further background information, below is a table showing the various frequencies and uses for radio waves. Radio waves are divided up into bands by frequency and corresponding wavelength, as shown below:

Band Name	Frequency/Wavelength	Example Uses
Extremely low (ELF)	3-30 Hz (100,000 km-10,000 km)	Communication with submarines
Super low frequency (SLF)	30-300 Hz (10,000 km - 1000 km)	Communication with submarines
Ultra low frequency (ULF)	300-3000 Hz (1000 km - 100 km)	Communication with mines
Very low frequency (VLF)	3-30 kHz (100km - 10 km)	Submarine communication, avalanche beacons, wireless heart rate monitors, geophysics
Low frequency (LF)	30-300 kHz (10-km - 1km)	Navigation, time signals, AM longwave broadcasting
Medium frequency (MF)	300 - 3000 kHz (1km - 100 m)	AM (medium-wave) broadcasts

High frequency (HF)	3-30 MHZ (100 m - 1m)	Shortwave broadcasts, amateur radio and over-the-horizon aviation communications
Very high frequency (VHF)	30-300 MHZ (10 m - 1 m)	FM, television broadcasts and line-of-sight ground-to-aircraft and aircraft-to-aircraft communications
Ultra high frequencies (UHF)	300-3000 MHZ (1m - 100mm)	Television broadcasts, microwave ovens, mobile phones, wireless LAN, Bluetooth, GPS and Two-Way radios such as FRS and GMRS radios
Super high frequencies (SHF)	3-30GHz (100 mm - 10 mm)	Microwave devices, wireless LAN, most modern radars
Extremely high frequencies (EHF)	3-300 GHz (10 mm - 1 mm)	Radio astronomy, high-speed microwave radio relay

Applicant's apparatus includes a low noise block down-converter (LNB) that is controlled to move from receiving radio frequency signals (see above) within a low band frequency range to receiving radio frequency signals within a high band frequency range (or vise versa) if the bit error rate (BER) exceeds a predefined BER during reception.

The Lakkis patent teaches that when the bit error rate exceeds a threshold, frequency adjustments are made by the local oscillator tuning to a different intermediate frequency (IF), that is, tuning to one or another frequency in the range of 950 MHz to 1350 MHz and not tuning to a different radio frequency signal within a low or high band frequency range, as in Applicant's invention.

It appears that the Lakkis patent teaches that the retuning occurs within the same band, as the difference in oscillator frequencies are only +/- 1MHz (see Col 5, lines 56-58).

Applicant's invention has the advantage of being able to receive radio signals when other devices present may cause interference with such radio signals, by switching the LNB between high and low band while maintaining the IF in the predefined range by adding or subtracting an offset value. Applicant's invention can switch the LNB for receiving low and high band radio frequency (RF) signals when the bit error rate threshold is exceeded.

The Wetzel patent described a system containing multiple LNB's for receiving signals from multiple satellites, but not all are powered concurrently. The LO frequency is prone to drift in different weather conditions, such that an offset correction of 2-3MHz may be provided to the active LNB and also used when a channel is selected which required a different LNB (col. 9, lines 6-30). However, Wetzel does not disclose switching between reception of low and high band radio frequency signals to avoid interference. The invention is directed towards avoiding interference with other signals. Clearly, shifting the frequency by only a few MHz in accordance with Wetzel is unlikely to be significant enough to avoid such interference.

Claims 2-5, 8, 10-12 depend upon independent claim 1 and are believed to be patentable over the cited references for the same reasons as stated above.

Applicant sincerely believes that the cited references, taken alone or in combination, do not disclose the method as set forth in independent method claim 14. Therefore, Applicant believes that claim 14, along with claim 15-17 and 19, is patentable over the cited references.

Claims 3 and 17 rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,694,131 to Lakkis in view of United States Patent No. 7,203,457 to Wetzel and further in view of United States Publication No. 2002/0183026 to Naruse are traversed herein. Reconsideration of the rejection is respectfully requested.

Claim 3 depends upon independent claim 1. Applicant believes that the subject matter as set forth is not taught or suggested in the cited references.

Claim 17 depends upon method claim 14. Applicant believes that subject matter of claim 17 is not taught or suggested in the cited references for the same reasons as set forth below with reference to claim 14.

Claim 4 rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No.

6,694,131 to Lakkis in view of United States Patent No. 7,203,457 to Wetzel as applied to claim 1 and further in view of United States Patent No. 6,880,115 to Abraham et al is traversed herein. Reconsideration of the rejection is requested. Claim 4 depends upon independent claim 1 and it is believed that the subject matter set forth is not taught or suggested in the cited references.

Claim 5 rejected 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,694,131 to Lakkis in view of United States Patent No. 7,203,457 to Wetzel as applied to claim 1 above, and further in view of United States Patent No. 7,009,641 to Bruckmann et al is traversed herein. Reconsideration of the rejection is respectfully requested. Claim 5 depends upon independent claim 1 and is believed patentable over the cited references for the reasons as set forth above.

Claims 8 and 19 rejected under 35 U.S.C. §103(a) as being unpatentable over United States Patent No. 6,694,131 to Lakkis in view of United States Patent No. 7,203,457 to Wetzel as applied to claims 1 and 14 above, and further in view of United States Patent No. 6,445,907 to Middeke et al are traversed herein. Reconsideration of the rejection is respectfully requested.

Claim 8 depends upon independent claim 1 and claim 19 depends upon independent method claim 14 and both are believed to be patentable over the cited references for the reasons as set forth above.

Claim 9 has been rejected under 35 U.S.C Section §103(a) as being unpatentable over United States Patent No. 6,694,131 to Lakkis in view of United States Patent No. 7,203,457 to Wetzel as applied to claim 1 above, and further in view of United States Publication No. 2004/0042569. Claim 9 has been currently canceled.

Claims 10, 11, 16 and 20 rejected under 35 U.S.C. §103(a) as being unpatentable over United

States Patent No. 6,694,131 to Lakkis in view of United States Patent No. 7,203,457 to Wetzel as applied to claims 1 and 14 above, and further in view of United States Patent No. 6,522,696 to Mobin et al are traversed herein. Reconsideration of the rejection is respectfully requested.

Claims 10, 11 and 20 depend upon currently amended independent claim 1 and are believed to be patentable over the cited references for the reasons as set forth above. Claim 16 depends upon independent method claim 14 and it is believed to be patentable over the cited references for the reasons as set forth above.

It is believed that the application is now in condition for allowance and such action is earnestly solicited. If any further issues remain, a telephone conference with the Examiner is requested. If any further fees are associated with this action, please charge or refund Deposit Account No. 08-1500.

Respectfully Submitted

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